

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Mangan Ranch, 41 West Powderville Road, Broadus, MT 59317
2. Type of action: Application for Beneficial Water Use Permit 42J 30107431
3. Water source name: Powder River
4. Location affected by project: Sections 5 and 6 T4S R52E
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The applicant proposes to divert water from the Powder River, by means of a pump, from May 1 to June 30 at a flow rate of 1.783 CFS up to a volume of 70.7 AF, from a point in the SESWNW Section 5 T4S R52E Powder River County, for irrigation use from May 1 to June 30. The Applicant proposes to irrigate 98 AC. The place of use is generally located approximately 6 miles northeast of Broadus in NE Section 6 and W2W2NW Section 5 T4S R52E Powder River County. The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.
6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
Montana Department of Natural Resources and Conservation
Montana Department of Fish, Wildlife and Parks
Montana Department of Environmental Quality
Montana Sage Grouse Habitat Conservation Program
Montana Natural Heritage Program
United States Fish and Wildlife Service
United States Natural Resource Conservation Service

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity – The Powder River is listed by the Montana Department of Fish, Wildlife and Parks as chronically dewatered over its entire length from the Wyoming-Montana border to the confluence with the Yellowstone River. Because the proposed project only appropriates water in high runoff months (May and June), and not during the late summer when flows are critically low, the project will not worsen the chronically dewatered condition.

Determination: No Impact

Water quality – According to the Montana Department of Environmental Quality, the Powder River is not threatened but does not fully support agriculture due to high salinity. The proposed project is center pivot sprinkler irrigation. Because of the high efficiency of sprinkler systems, the potential for degradation of surface water through runoff and return flow is diminished. The short period of diversion during high flow months lessens the potential impact to soils from salinity in the water.

Determination: No Significant Impact

Groundwater – Because the project does not appropriate groundwater and because the project uses a high efficiency sprinkler system, groundwater quality will be unaffected and groundwater quantity may be increased.

Determination: No Impact

DIVERSION WORKS – The proposed diversion on the Powder River is a portable pump with winch system that requires no excavation of the river bank. Because the pump is mobile and screened, the proposed project will not impact channels, riparian environments or flow characteristics.

Determination: No Impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species – According to the Montana Natural Heritage Program there are no plant species of concern in the proposed project area. Within T5S R52E there are ten animal species of concern including the Hoary Bat, Golden Eagle, Great Blue Heron, Greater Sage Grouse, Brewer's Sparrow, Western Milksnake, Blue Sucker, Sturgeon Chub, Sauger and Pallid Sturgeon. Although the Greater Sage Grouse is listed by the Montana Heritage Program, the Montana Sage Grouse Habitat Conservation Program reviewed the proposed project and determined that it was consistent with the program strategy. The proposed project is irrigation previously agricultural land. No changes to habitat will occur and no barriers would be created.

Determination: No Impact

Wetlands – The proposed project area is not mapped as part of the United States Fish and Wildlife Service National Wetlands Inventory. The area is generally dry upland benches along the eastern flank of the Crazy Mountains and wetlands are limited to stream valleys. No wetlands are present or proposed in the project area.

Determination: No Impact

Ponds – No ponds are present or proposed in the project area.

Determination: No Impact

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – The dominant soil in the project area is Haverson silt loam. This soil is well drained and non-saline to very slightly saline. There is no evidence of soil instability in the area and no saline seeps. Use of high efficiency sprinkler systems decreases the likelihood of return flows increasing salinity of the source. The high salinity of the Powder River water does have the potential to increase soil salinity.

Determination: No Significant Impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – The project area has been in agricultural production for many years. There is no proposed change in vegetative cover although the cover will be denser due to irrigation. Activities that would spread or establish noxious weeds are limited to the installation of the center pivot. It will be the responsibility of the landowner to prevent the spread of noxious weeds.

Determination: No Impact

AIR QUALITY – Installation of sprinkler irrigation has no potential to adversely affect air quality.

Determination: No Impact

HISTORICAL AND ARCHEOLOGICAL SITES – The project is not located on State or Federal Lands.

Determination: Not Applicable

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY – No other impacts on environmental resources of land, water and energy not already addressed are recognized.

Determination: No Impact

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS – There are no known locally adopted environmental plans or goals.

Determination: No Impact

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES – No roads are present or proposed as part of this project. The project is not adjacent to or near recreational or wilderness sites. The project is only to add irrigation on existing agricultural land.

Determination: No Impact

HUMAN HEALTH – Installation of sprinkler irrigation has no potential to adversely affect human health.

Determination: No Impact

PRIVATE PROPERTY - Assess whether there are any government regulatory impacts on private property rights.

Yes___ No__**X**_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: No Impact

OTHER HUMAN ENVIRONMENTAL ISSUES - For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.

Impacts on:

- (a) Cultural uniqueness and diversity? No Significant Impact
- (b) Local and state tax base and tax revenues? No Significant Impact
- (c) Existing land uses? No Significant Impact
- (d) Quantity and distribution of employment? No Significant Impact
- (e) Distribution and density of population and housing? No Significant Impact
- (f) Demands for government services? No Significant Impact
- (g) Industrial and commercial activity? No Significant Impact
- (h) Utilities? No Significant Impact
- (i) Transportation? No Significant Impact
- (j) Safety? No Significant Impact
- (k) Other appropriate social and economic circumstances? No Significant Impact

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: No secondary impacts are recognized.

Cumulative Impacts: No cumulative impacts are recognized.

3. *Describe any mitigation/stipulation measures:* None

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** The only reasonable alternative to the proposed project is a no-action alternative. The no-action alternative prevents the applicant from adding an irrigation system, increasing efficiency and improving crop yield. There are no recognized environmental impacts of the proposed project.

PART III. Conclusion

1. ***Preferred Alternative:*** Issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.
2. ***Comments and Responses:*** None
3. ***Finding:***
Yes___ No X___ *Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: No significant environmental impacts related to the proposed project were recognized during the Environmental Assessment and therefore it is the appropriate level of analysis.

Name of person(s) responsible for preparation of EA:

Name: Mark Elison
Title: Hydrologist
Date: 11/8/2016